HIGH PRESSURE FUEL PUMP PERFORMANCE TEST

1. If the engine will run do the following:
2. Monitor rail pressure with scan tool while the engine is at idle.
3. Compare the fuel pressure set point with the actual fuel pressure reading.
4. If actual fuel pressure reading fluctuates more than +/- 500 psi from the set point, then replace the Fuel Conrol Actuator (FCA). NOTE: After the acutator is removed, check for debris or corrosion on the FCA. If debris or corrosion is found, replace the entire Fuel Injection Pump.
5. Turn off engine.
6. Disconnect the FCA harness
7. Disconnect high pressure fuel line from fuel rail and route the high pressure fuel line into a graduated cylinder.
8. Crank the engine until fuel exits this line. This will not be high pressure fuel.
9. Crank the engine for three (3) 10 second intervals (Note: This will give you 30 total seconds of flow time. These are broken into 3 separate intervals to prevent damage to the starter). Fuel flow specification s based on engine cranking speed. If you do not collect the stated amount of fuel in 30 seconds, replace the pump:
   - Minimum fuel pump flow at 150 rpm cranking speed is 70mL
   - Minimum fuel pump flow at 200 rpm cranking speed is 90mL
10. If the engine is a no start do the following:
11. Remove fuel pump to railhigh pressure fuel line.
12. Inspect the fuel pump outlet port for rust, debris, or other signs of contamination.
13. Replace pump if any contamination is found. Check for source of water in fuel or debris in fuel to prevent future complaints. If no contamination is found continue to step 4.
14. Disconnect the Fuel Control Actuator (FCA).
15. Disconnect the high pressure fuel line from the fuel rail and route the high pressure fuel line to a graduated cylinder.
16. Crank the engine until fuel exits this line. This will not be high pressure fuel.
17. Crank the engine for three (3) 10 seconds intervals.

NOTE: This will give you 30 total seconds of flow time. These are broken into 3 separate intervals to prevent damage to the starter.

18. Fuel flow specification's based on engine cranking speed. If you do not collect the stated amount of fuel in 30 seconds, replace the pump:
    - Minimum fuel pump flow at 150 rpm cranking speed is 70mL
    - Minimum fuel pump flow at 200 rpm cranking speed is 90mL

Test complete

Repair
- Test complete.
- Perform the ECM VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Engine Control (ECM) - Standard Procedure)